

**IRON AND STEEL STATISTICS**  
**By Thomas D. Kelly and Michael D. Fenton**  
[All values in metric tons (t) unless otherwise noted]  
Last modification: May 26, 2004

PIG IRON STATISTICS								
Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	12,500,000				12,500,000	20.78	410.00	
1901	14,400,000				14,400,000	16.81	330.00	
1902	16,200,000				16,200,000	23.06	440.00	
1903	16,300,000				16,300,000	21.08	380.00	
1904	15,000,000				15,000,000	15.58	280.00	
1905	20,900,000				20,900,000	18.33	330.00	
1906	23,000,000				23,000,000	22.02	400.00	
1907	23,400,000				23,400,000	22.66	400.00	
1908	14,500,000				14,500,000	17.59	320.00	
1909	23,400,000	23,400,000	160,000	56,200	23,500,000	17.91	330.00	
1910	24,800,000	24,200,000	215,000	116,000	24,300,000	17.03	300.00	66,500,000
1911	21,500,000	21,100,000	135,000	110,000	21,100,000	15.51	270.00	64,400,000
1912	27,000,000	27,400,000	117,000	247,000	27,200,000	15.36	260.00	73,700,000
1913	28,100,000	27,600,000	142,000	252,000	27,500,000	16.62	274.00	79,000,000
1914	21,200,000	20,200,000	153,000	104,000	20,200,000	14.79	241.00	56,300,000
1915	27,100,000	27,600,000	81,500	204,000	27,400,000	14.56	235.00	50,500,000
1916	35,800,000	35,500,000	123,000	551,000	35,100,000	18.70	280.00	74,300,000
1917	35,000,000	35,000,000	69,700	595,000	34,500,000	30.08	383.00	71,900,000
1918	35,400,000	34,700,000	31,500	245,000	34,500,000	34.05	368.00	65,200,000
1919	28,100,000	27,300,000	92,200	291,000	27,100,000	28.38	268.00	50,900,000
1920	33,500,000	32,400,000	169,000	197,000	32,400,000	35.22	286.00	61,300,000
1921	15,100,000	14,500,000	39,900	25,700	14,600,000	26.76	243.00	36,700,000
1922	24,700,000	25,100,000	348,000	28,100	25,400,000	24.23	235.00	70,000,000
1923	36,600,000	34,800,000	334,000	29,300	35,100,000	27.20	259.00	68,500,000
1924	28,500,000	28,200,000	190,000	37,600	28,300,000	23.60	225.00	76,900,000
1925	33,300,000	33,400,000	400,000	29,600	33,800,000	22.13	207.00	76,900,000
1926	35,700,000	34,600,000	404,000	22,900	35,000,000	21.64	199.00	78,900,000
1927	33,200,000	31,600,000	120,000	46,300	31,700,000	20.43	191.00	86,800,000
1928	34,600,000	34,700,000	128,000	76,800	34,800,000	19.04	181.00	88,900,000
1929	38,700,000	37,700,000	134,000	42,100	37,800,000	19.41	185.00	98,500,000
1930	27,700,000	27,100,000	124,000	12,400	27,200,000	18.88	185.00	80,200,000
1931	16,300,000	16,200,000	76,600	6,100	16,200,000	17.65	189.00	55,700,000
1932	7,760,000	7,730,000	119,000	2,110	7,840,000	16.31	194.00	39,800,000
1933	11,800,000	13,000,000	122,000	2,490	13,100,000	16.38	205.00	49,400,000
1934	14,200,000	14,200,000	104,000	3,720	14,300,000	18.44	224.00	63,000,000
1935	18,900,000	19,200,000	119,000	3,730	19,300,000	18.64	222.00	74,400,000
1936	27,400,000	27,900,000	150,000	4,820	28,100,000	17.32	203.00	91,600,000
1937	32,800,000	32,000,000	101,000	710,000	31,300,000	20.44	231.00	104,000,000
1938	16,900,000	16,500,000	27,600	392,000	16,100,000	19.30	223.00	82,900,000
1939	28,200,000	29,100,000	35,000	161,000	29,000,000	19.22	225.00	102,000,000
1940	37,400,000	38,000,000	9,290	502,000	37,500,000	19.73	230.00	110,000,000
1941	50,000,000	50,100,000	3,330	525,000	49,600,000	22.19	246.00	110,000,000
1942	53,600,000	53,600,000		100,000	53,500,000	22.89	229.00	103,000,000
1943	55,100,000	55,100,000	1,310	131,000	55,000,000	23.09	218.00	105,000,000
1944	55,300,000	55,300,000	5,240	147,000	55,200,000	23.12	214.00	98,000,000
1945	48,300,000	48,300,000	19,400	82,400	48,300,000	24.26	221.00	71,700,000
1946	40,700,000	40,900,000	12,800	86,800	40,800,000	27.00	225.00	71,700,000
1947	52,900,000	53,000,000	29,600	9,920	53,000,000	33.44	244.00	90,700,000
1948	54,500,000	54,500,000	199,000	6,380	54,700,000	40.97	277.00	103,000,000
1949	48,400,000	48,000,000	90,500	73,800	48,000,000	46.35	317.00	105,000,000
1950	58,500,000	58,600,000	730,000	6,180	59,400,000	47.23	319.00	134,000,000

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PIG IRON STATISTICS								
Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1951	63,800,000	63,700,000	968,000	5,950	64,700,000	51.53	322.00	151,000,000
1952	55,600,000	55,600,000	345,000	12,800	55,900,000	53.38	327.00	153,000,000
1953	67,900,000	67,300,000	535,000	17,100	67,800,000	54.93	335.00	169,000,000
1954	52,600,000	52,400,000	264,000	9,300	52,700,000	55.04	334.00	159,000,000
1955	69,700,000	70,100,000	257,000	31,700	70,400,000	55.86	341.00	193,000,000
1956	68,100,000	68,100,000	297,000	244,000	68,200,000	59.06	354.00	201,000,000
1957	71,100,000	69,800,000	204,000	800,000	69,200,000	64.41	374.00	212,000,000
1958	51,900,000	51,600,000	191,000	93,400	51,700,000	65.70	371.00	197,000,000
1959	54,600,000	55,600,000	636,000	9,070	56,200,000	65.40	365.00	224,000,000
1960	60,300,000	59,500,000	325,000	102,000	59,700,000	65.62	361.00	259,000,000
1961	58,800,000	59,200,000	342,000	342,000	59,200,000	64.50	352.00	256,000,000
1962	59,500,000	59,600,000	454,000	140,000	59,900,000	64.10	346.00	266,000,000
1963	65,200,000	65,500,000	585,000	63,500	66,000,000	64.45	343.00	281,000,000
1964	77,500,000	77,700,000	668,000	160,000	78,200,000	64.21	338.00	317,000,000
1965	80,000,000	80,200,000	800,000	25,400	81,000,000	62.84	326.00	335,000,000
1966	82,800,000	82,400,000	1,080,000	10,900	83,500,000	62.10	312.00	347,000,000
1967	78,700,000	78,800,000	549,000	6,350	79,300,000	62.15	303.00	350,000,000
1968	80,500,000	80,800,000	713,000	8,160	81,500,000	62.15	292.00	379,000,000
1969	86,200,000	86,600,000	367,000	39,900	86,900,000	71.64	318.10	411,000,000
1970	82,800,000	82,800,000	226,000	281,000	82,700,000	71.63	301.00	431,000,000
1971	73,800,000	73,800,000	278,000	30,800	74,000,000	77.41	311.50	430,000,000
1972	80,600,000	80,800,000	578,000	13,600	81,400,000	85.30	332.70	454,000,000
1973	91,900,000	92,200,000	405,000	13,600	92,600,000	82.04	301.20	501,000,000
1974	86,600,000	87,000,000	310,000	91,600	87,300,000	142.60	471.40	512,000,000
1975	72,300,000	71,900,000	434,000	54,400	72,300,000	189.30	573.50	479,000,000
1976	78,800,000	78,600,000	376,000	52,600	79,000,000	197.50	565.70	498,000,000
1977	73,900,000	74,700,000	338,000	46,300	75,000,000	198.50	533.90	488,000,000
1978	79,600,000	80,300,000	594,000	46,300	80,900,000	204.90	512.30	506,000,000
1979	78,900,000	79,600,000	432,000	95,300	80,000,000	212.20	476.40	532,000,000
1980	62,300,000	63,000,000	363,000	66,200	63,300,000	216.80	428.90	514,000,000
1981	66,900,000	67,300,000	425,000	14,500	67,700,000	227.40	407.70	502,000,000
1982	39,300,000	39,400,000	292,000	49,000	39,700,000	229.60	387.80	457,000,000
1983	44,200,000	44,500,000	220,000	5,440	44,700,000	226.20	370.20	463,000,000
1984	47,100,000	43,100,000	112,000	51,700	47,400,000	215.40	337.90	495,000,000
1985	45,300,000	45,800,000	307,000	29,000	45,600,000	223.20	338.10	499,000,000
1986	40,200,000	39,900,000	268,000	37,200	40,500,000	206.70	307.40	495,000,000
1987	43,800,000	43,700,000	322,000	45,000	44,200,000	209.20	300.20	509,000,000
1988	50,600,000	51,000,000	635,000	65,000	50,300,000	234.80	323.50	539,000,000
1989	50,700,000	51,300,000	443,000	11,000	51,100,000			546,000,000
1990	49,700,000	49,700,000	347,000	14,000	50,000,000			531,000,000
1991	44,100,000		434,000	15,000	44,500,000			509,000,000
1992	47,400,000		497,000	33,000	47,900,000			503,000,000
1993	48,200,000		828,000	27,000	49,000,000			507,000,000
1994	49,400,000		2,440,000	56,000	51,800,000			516,000,000
1995	50,900,000		2,360,000	56,000	51,000,000			536,000,000
1996	49,400,000		2,660,000	60,000	50,000,000			516,000,000
1997	49,600,000		3,150,000	86,000	51,000,000			540,000,000
1998	48,200,000		5,140,000	87,000	49,000,000			535,000,000
1999	46,300,000		4,990,000	82,000	48,000,000			539,000,000
2000	47,900,000		4,970,000	72,000	49,000,000			573,000,000
2001	42,100,000		4,370,000	44,000	47,000,000			577,000,000

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Last modification: May 26, 2004

PIG IRON STATISTICS								
Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
2002	40,200,000		4,620,000	34,000	42,000,000			604,000,000

**IRON AND STEEL STATISTICS**  
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<b>DIRECT REDUCED IRON STATISTICS</b>					
<b>Year</b>	<b>Production</b>	<b>Imports</b>	<b>Exports</b>	<b>Apparent consumption</b>	<b>World production</b>
1984					9,240,000
1985	140,000			140,000	11,000,000
1986	160,000			160,000	12,400,000
1987	210,000	56,000	15,000	251,000	13,800,000
1988	290,000	176,000	17,000	449,000	14,400,000
1989	290,000	226,000	23,000	493,000	16,600,000
1990	390,000	333,000	4,000	719,000	18,200,000
1991	410,000	365,000	4,000	771,000	19,100,000
1992	390,000	542,000	9,000	923,000	20,500,000
1993	440,000	1,090,000	17,000	1,510,000	23,500,000
1994	480,000	1,170,000	18,000	1,630,000	27,700,000
1995	460,000	1,190,000	5,000	1,650,000	31,100,000
1996	450,000	1,050,000	3,000	1,500,000	33,000,000
1997	510,000	987,000	8,000	1,490,000	36,200,000
1998	1,600,000	939,000	5,000	2,530,000	37,200,000
1999	1,670,000	950,000	3,000	2,620,000	38,200,000
2000	1,560,000	988,000	2,000	2,550,000	42,500,000
2001	1,200,000	1,650,000	1,000	2,849,000	39,300,000
2002	470,000	2,010,000	1,000	2,479,000	38,800,000

**IRON AND STEEL STATISTICS**  
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Last modification: May 26, 2004

STEEL STATISTICS							
Year	Production	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	9,240,000			9,200,000	35.49	700.00	
1901	12,200,000			12,000,000	31.75	620.00	
1902	13,600,000			14,000,000	34.83	660.00	
1903	13,200,000			13,000,000	34.39	630.00	
1904	12,600,000			13,000,000	29.32	530.00	
1905	18,200,000			18,000,000	32.63	590.00	
1906	21,200,000			21,000,000	33.29	610.00	
1907	21,200,000			21,000,000	35.27	620.00	
1908	12,700,000			13,000,000	32.63	590.00	
1909	21,700,000			22,000,000	28.88	530.00	
1910	23,700,000			24,000,000	31.53	550.00	
1911	21,500,000			22,000,000	27.78	490.00	
1912	28,300,000			28,000,000	27.56	470.00	
1913	28,400,000			28,000,000	30.42	501.00	
1914	21,300,000	127,000	1,210,000	20,200,000	25.35	414.00	
1915	29,100,000	174,000	3,010,000	26,300,000	28.88	466.00	
1916	38,700,000	170,000	5,000,000	33,900,000	54.67	817.00	
1917	40,600,000	216,000	5,240,000	35,600,000	76.94	980.00	
1918	39,900,000	113,000	4,600,000	35,400,000	63.71	688.00	
1919	31,100,000	195,000	3,700,000	27,600,000	53.57	505.00	
1920	37,800,000	203,000	4,250,000	33,800,000	65.92	536.00	
1921	17,800,000	71,700	1,980,000	15,900,000	41.67	379.00	
1922	32,000,000	193,000	1,730,000	30,500,000	37.48	364.00	
1923	40,300,000	219,000	1,520,000	39,000,000	51.37	489.00	
1924	34,000,000	152,000	1,560,000	32,600,000	48.50	462.00	
1925	40,600,000	171,000	1,510,000	39,300,000	44.97	420.00	
1926	43,200,000	188,000	1,850,000	41,500,000	43.87	403.00	
1927	40,200,000	121,000	1,720,000	38,600,000	40.57	379.00	
1928	46,000,000	139,000	2,060,000	44,100,000	41.23	393.00	
1929	50,300,000	155,000	2,210,000	48,200,000	42.33	403.00	
1930	36,400,000	293,000	1,440,000	35,300,000	38.14	374.00	
1931	23,500,000	278,000	740,000	23,000,000	35.94	385.00	
1932	12,400,000	202,000	328,000	12,300,000	34.83	415.00	
1933	21,100,000	176,000	510,000	20,800,000	36.16	453.00	
1934	23,600,000	144,000	871,000	22,900,000	39.90	485.00	
1935	27,700,000	255,000	868,000	27,100,000	39.68	472.00	
1936	43,300,000	374,000	1,100,000	42,600,000	42.33	496.00	
1937	45,900,000	266,000	512,000	45,700,000	55.91	633.00	
1938	25,700,000	151,000	375,000	25,500,000	54.21	627.00	
1939	60,800,000	174,000	2,360,000	58,600,000	50.95	597.00	
1940	78,000,000	19,700	7,340,000	70,700,000	50.73	591.00	
1941	75,200,000	16,200	5,930,000	69,300,000	52.82	586.00	
1942	78,000,000	22,500	6,470,000	71,600,000	52.82	528.00	
1943	80,600,000	16,000	6,370,000	74,200,000	52.82	498.00	172,000,000
1944	81,300,000	51,000	5,350,000	76,000,000	52.82	489.00	164,000,000
1945	72,300,000	69,000	1,940,000	70,400,000	53.99	491.00	101,000,000
1946	60,400,000	23,200	1,770,000	58,700,000	59.22	494.00	123,000,000
1947	77,000,000	31,000	2,680,000	74,400,000	66.45	485.00	123,000,000
1948	80,400,000	142,000	1,920,000	78,600,000	75.71	512.00	141,000,000
1949	70,700,000	277,000	2,060,000	68,900,000	81.86	561.00	145,000,000

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<b>STEEL STATISTICS</b>							
<b>Year</b>	<b>Production</b>	<b>Imports</b>	<b>Exports</b>	<b>Apparent consumption</b>	<b>Unit value (\$/t)</b>	<b>Unit value (98\$/t)</b>	<b>World production</b>
1950	87,800,000	1,000,000	1,260,000	87,500,000	85.14	575.00	189,000,000
1951	95,400,000	2,080,000	1,410,000	96,100,000	91.07	569.00	211,000,000
1952	84,500,000	1,130,000	4,040,000	81,600,000	93.41	573.00	211,000,000
1953	101,000,000	1,590,000	3,050,000	99,500,000	99.60	607.00	235,000,000
1954	80,100,000	811,000	2,810,000	78,100,000	104.00	630.00	224,000,000
1955	106,000,000	995,000	4,060,000	103,000,000	109.70	669.00	269,000,000
1956	105,000,000	1,370,000	4,310,000	102,000,000	118.10	707.00	284,000,000
1957	102,000,000	1,170,000	5,370,000	98,100,000	127.90	744.00	293,000,000
1958	77,300,000	1,650,000	2,930,000	76,100,000	133.60	755.00	271,000,000
1959	84,800,000	4,190,000	1,790,000	87,200,000	136.60	763.00	305,000,000
1960	90,100,000	3,240,000	2,950,000	90,400,000	136.60	751.00	346,000,000
1961	88,900,000	3,000,000	2,010,000	89,900,000	136.60	747.00	352,000,000
1962	89,200,000	3,900,000	2,060,000	91,000,000	136.60	738.00	361,000,000
1963	99,100,000	5,110,000	2,420,000	102,000,000	138.30	736.00	387,000,000
1964	115,000,000	6,010,000	3,690,000	118,000,000	140.20	738.00	437,000,000
1965	119,000,000	9,650,000	2,620,000	126,000,000	141.10	731.00	459,000,000
1966	122,000,000	10,000,000	1,950,000	130,000,000	142.10	714.00	475,000,000
1967	115,000,000	10,700,000	1,910,000	124,000,000	143.20	699.00	494,000,000
1968	119,000,000	16,700,000	2,420,000	134,000,000	145.50	683.00	530,000,000
1969	128,000,000	13,200,000	5,250,000	136,000,000	150.90	670.10	574,000,000
1970	119,000,000	12,600,000	6,950,000	125,000,000	156.30	656.70	594,000,000
1971	109,000,000	17,000,000	3,200,000	123,000,000	168.70	678.90	581,000,000
1972	121,000,000	16,500,000	3,220,000	134,000,000	185.80	724.70	629,000,000
1973	137,000,000	14,200,000	4,500,000	146,000,000	207.20	760.70	698,000,000
1974	132,000,000	14,900,000	6,340,000	140,000,000	244.70	808.90	708,000,000
1975	106,000,000	11,300,000	3,610,000	94,400,000	288.80	874.90	644,000,000
1976	116,000,000	13,600,000	3,330,000	104,000,000	313.30	897.50	674,000,000
1977	114,000,000	18,100,000	2,810,000	116,000,000	343.40	923.60	673,000,000
1978	124,000,000	20,000,000	2,970,000	120,000,000	395.90	989.80	715,000,000
1979	124,000,000	16,700,000	3,080,000	122,000,000	441.10	990.40	745,000,000
1980	101,000,000	14,800,000	4,290,000	102,000,000	477.40	944.40	716,000,000
1981	110,000,000	18,900,000	3,230,000	109,000,000	534.00	957.50	707,000,000
1982	67,700,000	15,800,000	2,150,000	80,400,000	557.10	941.10	644,000,000
1983	76,800,000	16,300,000	1,440,000	83,400,000	577.40	945.00	663,000,000
1984	83,900,000	24,900,000	1,280,000	100,000,000	602.10	944.60	711,000,000
1985	80,100,000	23,300,000	1,150,000	96,800,000	608.50	921.80	718,000,000
1986	74,000,000	20,100,000	1,090,000	86,500,000	546.70	813.10	713,000,000
1987	80,900,000	18,500,000	1,020,000	87,200,000	560.00	803.60	734,000,000
1988	90,700,000	19,000,000	1,880,000	93,100,000	560.00	771.60	780,000,000
1989	88,900,000	15,700,000	4,150,000	87,500,000	555.60	730.40	784,000,000
1990	89,700,000	15,600,000	3,900,000	89,000,000	577.50	720.30	771,000,000
1991	79,700,000	14,400,000	5,760,000	80,800,000	600.20	718.30	737,000,000
1992	84,300,000	15,500,000	3,890,000	86,200,000	531.20	617.20	724,000,000
1993	88,800,000	17,700,000	3,600,000	92,000,000	539.80	608.90	730,000,000
1994	91,200,000	27,300,000	3,470,000	104,000,000	570.30	627.30	730,000,000
1995	95,200,000	22,100,000	6,420,000	102,000,000	592.30	633.50	752,000,000
1996	95,500,000	26,500,000	4,560,000	108,000,000	633.90	658.50	751,000,000
1997	98,500,000	28,300,000	5,470,000	114,000,000	655.90	666.10	797,000,000
1998	98,600,000	37,700,000	5,010,000	118,000,000	625.20	625.20	770,000,000
1999	97,400,000	32,400,000	4,920,000	116,000,000	581.40	568.90	784,000,000

**IRON AND STEEL STATISTICS**  
**By Thomas D. Kelly and Michael D. Fenton**  
[All values in metric tons (t) unless otherwise noted]  
**Last modification: May 26, 2004**

STEEL STATISTICS							
Year	Production	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
2000	102,000,000	34,400,000	5,920,000	120,000,000	593.90	562.40	845,000,000
2001	90,100,000	27,300,000	5,570,000	107,000,000	555.00	511.00	847,000,000
2002	91,600,000	29,600,000	5,450,000	107,000,000	574.20	520.10	898,000,000

## Iron and Steel Worksheet Notes

### Data Sources

The sources of data for the Iron and Steel worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS); and Metal Prices in the United States through 1998 (MP98). The March 2000 issue of “New Steel” provides a composite price series for finished steel. The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available.

### Pig Iron

#### Primary Production

U.S. production of pig iron is recorded from the MYB and the MR for the years 1900–2002.

#### Shipments

Shipments of pig iron from U.S. producers are recorded from the MYB and the MR for the years 1909–90. Shipment data were not available for the years 1900–08.

#### Imports

Imports of pig iron into the United States are recorded from the MYB and the MR for the years 1909–2002. Import data were not available for the years 1900–08.

#### Exports

Exports of pig iron from the United States are recorded from the MYB and MR for the years 1909–2002. Export data were not available for the years 1900–08.

#### Apparent Consumption

Apparent consumption of pig iron was recorded from the Scrap Iron and Steel chapter of the MYB from 1935–2002. From 1900–34, apparent consumption was calculated. For the years 1908–34, the following formula was used to calculate apparent consumption:

$$\text{APPARENT CONSUMPTION} = \text{SHIPMENTS} + \text{IMPORTS} - \text{EXPORTS}.$$

From 1900–08, shipments were not reported. Production was substituted for shipments in the formula above.

#### Unit Value (\$/t)

Unit value is defined as the value in dollars of 1 metric ton (t) of pig iron apparent consumption. Unit value for pig iron is estimated from the reported average annual value of shipments from the MYB and the MR. Data were not available for the years 1989–2002.

#### Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

### World Production

World production of pig iron was recorded from the MYB and the MR for the years 1910–2002. World production tables changed to production by principal countries tables for the years 1910–22 for pig iron. A graph of world production shows no sudden jump in quantity moving from 1922 to the 5 following years, 1923–28. This indicates that most major producers were probably included in the “principal countries” category. World production data were not available for the years 1900–09.

### Direct Reduced Iron

#### Production

U.S. production of direct reduced iron is recorded from the MYB for the years 1985–2002.

#### Imports

Imports of direct reduced iron into the United States are recorded from the MYB for the years 1987–2002.

#### Exports

Exports of direct reduced iron from the United States are recorded from the MYB for the years 1987–2002.



## **Apparent Consumption**

Apparent consumption for direct reduced iron was calculated for the years 1987–2002 with the following formula:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS}.$$

For the years 1984 and 1985, apparent consumption was assumed to be equal to production since imports and exports were not available.

## **World Production**

World production of direct reduced iron was recorded from the MYB for the years 1984–2002.

## **Steel**

### **Production**

U.S. production of steel is recorded from the MYB and the MR. Production of steel is the total of carbon steel, stainless steel, and alloy steel for the years 1942–2002. Stainless steel is not reported for the years 1900–41. In 1932, the category alloy steel disappears and electric steel is reported. There is a noticeable drop in quantity of the time series moving through this name change, reflecting the fact that electric steel is alloy steel, but not all alloy steel is electric steel. The total steel production from 1900–32 is estimated by summing production for carbon steel and electric steel.

### **Imports and Exports**

Imports and exports for steel are reported as steel mill products imported or exported from 1956–2002 for imports and from 1942–2000 for exports. Prior to 1956 or 1942, imports and exports for iron and steel products are given in two different tables (sometimes summed and sometimes not). For the years, 1956–68, the iron and steel exports table is simultaneously reported with exported steel mill products table. Comparing the table, iron and steel products exported, with the steel mill products exported table demonstrates that iron products account for about 9% of the amount of exports in the iron and steel products exported table. Using this 9% deduction both the import and export tables of iron and steel products were reduced to estimate steel mill products exported and imported for those years in which these categories were not directly reported. Semimanufactures and manufactures were accounted for in summing these tables. Advanced manufactures were not included in the summation.

### **Apparent Consumption**

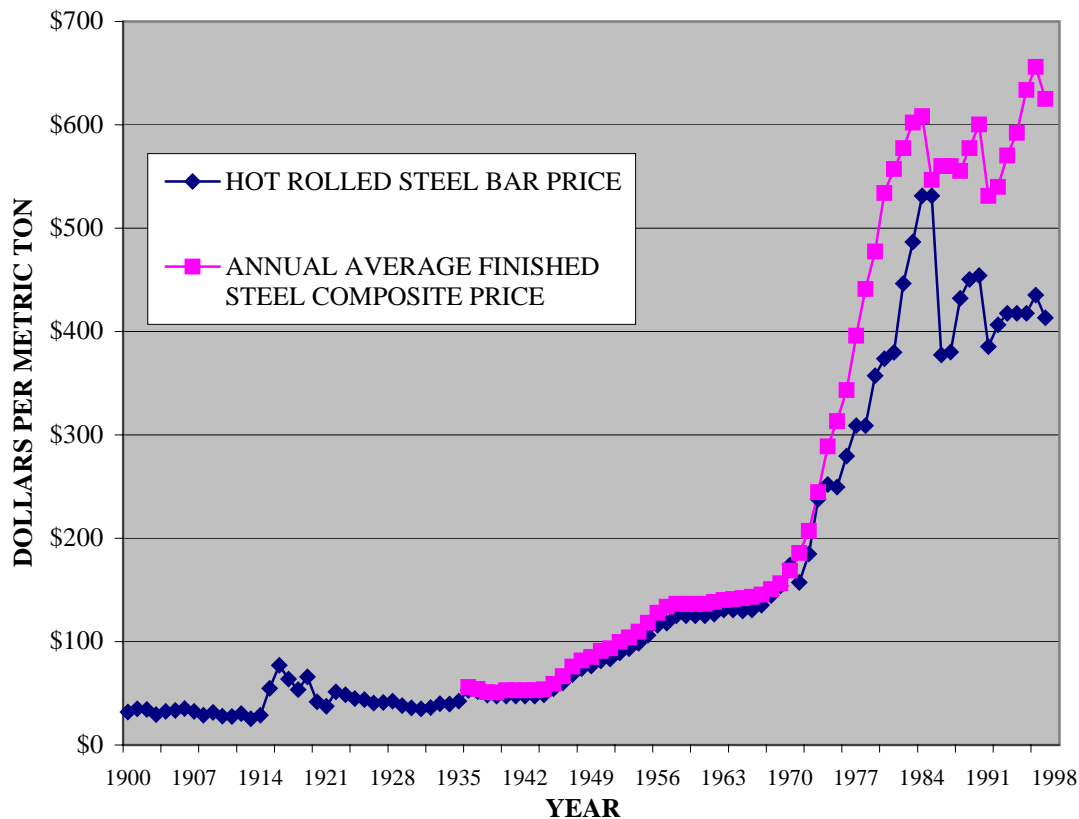
Apparent consumption for steel is reported for 1972–2002 from data in MCS. For the years 1914–71, apparent consumption was calculated with the formula:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS}.$$

For the years 1900–13, imports and exports were not reported, so apparent consumption was estimated as equal to production. For these years, two significant figures are reported.

### **Unit value (\$/t)**

Unit value is defined as value in dollars for 1 metric ton (t) of steel apparent consumption. Unit value for steel was estimated by combining hot rolled steel bar price from the years 1900–36 as published in MP98 with the “Iron Age” (now called “New Steel”) annual average composite steel price from 1936 to the present as published in the MYB and MR from 1936–89, and in “New Steel” from 1990–98 (New Steel Online, March 2000, New Steel’s guide to steel prices and production in 1999, accessed April 15, 2000, at URL <http://www.newsteel.com>). Figure 1 indicates that from 1900–36 the hot rolled steel bar price is a good predictor of the “Iron Age” composite price, because the two curves pull together into almost complete overlap by 1936.



**Figure 1 Price Comparison**

Because the “Iron Age” composite price was reported from 1936–89 in the MYB, this price series was continued from 1990–98. Since 1990, the producer price index has been reported in the MYB. The fact that the composite price exceeds the hot rolled steel bar price in current years is explained by the increases in alloy steel and stainless steel since the 1970s. Since unit value is an estimate of the value of apparent consumption; this conjoined price series better estimates the value of steel consumed in the United States than the hot rolled steel bar price series. For the years 1999–2002, the producer price index for steel mill products was used to continue the unit value price series because “New Steel” ceased publication in September 2001.

#### Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

#### World Production

World production for steel is recorded from the MYB for the years 1943–2002. World production statistics were not available for the years 1900–42.

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